

THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

DETROIT, SATURDAY, AUGUST 25, 1860.

VOL. 2., NO. 34.

The Michigan Farmer,**R. F. JOHNSTONE, EDITOR.****PUBLICATION OFFICE, 130 JEFFERSON AVENUE,
DETROIT, MICHIGAN.**

The MICHIGAN FARMER presents superior facilities to business men, publishers, manufacturers of Agricultural Implements, Nursery men, and stock breeders for advertising.

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CONTENTS.**THE FARM:** Clean your Wheat..... 263

White and Red Wheat..... 265

French and Spanish Sheep..... 265

Chicken Lice..... 265

A trip among the Breeders..... 265

The Nightingale not a Myth..... 265

White Purkey Wheat..... 265

The Cattle Disease..... 266

Care and Management of Timothy Meadows..... 266

French Horses..... 266

Value of Liquid Manure..... 266

Underdraining..... 266

Farm Notes: Wheat in Tuscola County—Arabian Horses—Trot at Adrian—Cure for the Scratches—Milk Becoming Thick while Sweet..... 267

THE GARDEN AND ORCHARD: Summer Fruits at our Fairs—Their Preservation 267

Fruit at Kalamazoo..... 267

The Science of Gardening..... 267

Northern Grapes and Wines..... 267

Hardy Variegated Trees..... 267

Horticultural Notes: Grape Growing—A Cheap Mower—Wearing out of Peach Trees—Cost of Strawberries—Apricots at Lexington..... 267

EDITORIAL: Editorial Miscellany..... 268

The Market Prospects..... 268

Literary and Scientific..... 268

Political Summary..... 268

Foreign events..... 268

The "Constitutional Union" Party..... 269

Sales of Cotswold Rams..... 269

General News..... 269

HOUSEHOLD: Poetry: Little Willie and the Apple..... 270

Tight Dressing—Its bad effects..... 270

Household Varieties..... 270

The Worst Boy in School..... 270

Knowing too Much..... 271

Markets..... 272

The Farm.**Clean your Wheat.**

A great many farmers seem to adhere to the idea that foul wheat not only helps to fill the bushel, but that they get paid for the chess, straw, chaff, and other stuff that is mingled with their wheat when they offer it for sale. They labor under a grievous error. They do not get any pay; on the contrary, as a general rule, they themselves pay a forfeit for permitting such stuff to be among the grain they offer in market. In the first place, they must recollect that a wheat buyer is just as smart as they are; where a large number of parcels of wheat is passing under his eye every day, he is far more accustomed to decide what is clean wheat than the seller, and the moment the bag is opened that he may inspect, he judges at once what is the value of the parcel or load, and makes his offer accordingly, generally at rates from two to five cents below the highest price. Where he cuts off three cents per bushel, on a load of thirty bushels, it will be seen that a loss of 90 cents is sustained, that would have paid handsomely for the time and labor of giving the load another turn through the fanning mill, whilst probably not over a bushel of foul stuff, weighing not more than thirty pounds, would have been extracted. A corn commission merchant on the dock in Detroit, during a winter season when business was somewhat dull, tried the experiment of cleaning over a large quantity of the wheat that was offered in market and which he bought in the streets. He found that it paid him well, and waiting till he got a large quantity of wheat, which he bought at low rates on account of its foulness, he procured a fanning mill and two men, with which he first cleaned the grain, and he afterwards sold the same



First Prize Spanish Merino Sheep, owned by S. B. Palmer, Norwell, Mich.

The buck shown in the engraving is represented at three years old. He was raised by T. L. Spafford of Manchester (was sired by a buck owned by him which took the first premium at the National Fair at Chicago in 1859; grand sire was owned by Mr. Hammond, of Vermont, and was valued at \$500). He has sheared, of well washed wool, 43 lbs., an average of 14½ lbs. per fleece; is of good size, form and constitution, and has proved a first rate stock getter. Bucks of his get have sheared at one year old from 8½ to 11½ lbs.; at two years old, from 11½ to 16½ lbs.; yearling ewes from 6 lbs. to 10 lbs. 1 oz., washed wool. The two ewes shown above are of his get, represented at two years old; one of them sheared (first fleece) 8 lbs. 1 oz., the other 10 lbs. 1 oz. My sheep for the past three years have sheared, of well washed

wool (except two yearling bucks not washed this season), and which sold as follows:

Year	Sheep	Weight	Price
1858.	15 ewes sheared	168 lbs. 14 oz.	\$249.57
	8 bucks	" 88 "	—
	Making	191 lbs. 14 oz. at 25c.	\$47.15
1859.	20 ewes sheared	124 lbs. 2 oz.	\$35.00
	4 wethers	" 26 " 6 oz.	—
	3 bucks	" 30 " —	—
	Making	150 lbs. 8 oz. at 45c.	\$67.25
1860.	24 ewes sheared	156 lbs. 8 oz.	\$35.00
	6 bucks	" 68 " 8 "	—
	Making	220 lbs. at 45c. per lb.	\$101.20

Fleeces, 50 No. pounds, 592½ Amt. cash..... \$249.57 This gives me an average for the three years of 15 lbs. over 7 lbs. 6 oz. head and about 39.12 each. I have raised within the time 34 lambs which are worth to me, to keep or sell, \$7.50 per head, making \$135.00, which added to wool..... 185.00

Would give an income for the time specified of \$484.57

My sheep are Spanish merino. I have not a poor one on the premises. I have turned

seven dry ewes into the road in order to reduce them in flesh sufficient to breed from. Last fall I butchered two yearling wethers, the hind quarters of each weighed 60 lbs.; one had 17 lbs., the other 17½ lbs. of tallow. They had nothing but grass after being turned to pasture in spring. I house my sheep in winter, and have fed grain to all until last winter. My breeding ewes had good hay, but no grain, and had a range in pleasant weather through the day. For the past ten or twelve years I have been breeding to combine long, fine wool and a compact fleece with good size, fine form and hardy constitution. How well I have succeeded any one can satisfy themselves by calling on me at my residence, one mile and a half miles from Norwell, Michigan.

S. B. PALMER.

Norwell, Aug. 16, 1860.

A Trip Among the Breeders.

Last week we had an opportunity of making a hasty trip into the country, and taking a glance at the stock on some of the farms in the neighborhood of Farmington and Northville. Mr. Van Duzen, an artist who makes portraits of animals, and who last year had the commission to make engravings of the premium cattle and horses which bore of the prizes at the great St. Louis exhibition is now paying our State a business visit, and we accompanied him and Mr. F. E. Eldred, to the stock farm of the latter at Farmington, where we expected to find some other breeders from the south part of the State on a visit. In this however we was disappointed.

French and Spanish Sheep.

MR. JOHNSTONE—Sir: I noticed in the FARMER a letter from A. J. Hunter, Esq., of Franklin, in whose barn those heavy fleeces were shorn, which he said were clipped from Spanish Sheep. I was glad to hear from him and know the blood of his sheep. In the first place I did not make any pretensions to beat him; I only wished to know whether his were Spanish or not; or whether they were the heaviest that could be heard from. I have a neighbor that sheared (as I have been informed) from one French buck 22½ pounds—beating Mr. Hunter a trifle. I did not intend to brag or boast, as Mr. Tibbits says; I wished only to say what my sheep sheared. As he says, "there is never one so high but some one will beat him a little!" is a true old saying. His hints seem to have decided preference for Spanish sheep—I am willing he should have this much. I believe that Spanish sheep cannot shear as much cleansed wool as French. I have often made the remark that a half-blooded French buck, owned by me, will shear more pure wool than any Spanish buck in the State—the sheep never shearing more than 12½ pounds of wool. Now it looks reasonable to me that a sheep weighing 200 or thereabouts will shear more wool than one that will only weigh 100 or 160; and none will dispute the compactness of the fleece of the French, and there is no waste places, being woolled from the nose to the hoof.

Yours, &c., R. THOMPSON.

Chickens Lice.

A correspondent of the Genesee Farmer states that seeing sassafras poles recommended for roosts, to prevent lice from infesting his fowls, he got some, and also scattered the bark of sassafras root among the nests. He also says that a neighbor whose fowls had been greatly plagued with lice, tried the same remedy, with the same results. Such is represented to be the power of the bark of the root, that lice dropped on it died almost instantly! It is a thing easily tried.

Kemble Jackson is looking as well as usual. At this farm there is kept a very fine jack, which has been much used in this neighborhood, Mr. Eldred having made engagements himself for the produce of forty mares, for the purpose of raising the mules. The jack is a very fine one, being a beautiful dark brown in color and of good size, but as the quality of these animals is appraised altogether by the value of their stock of mules, it is yet too soon to judge him, as he has been in this place only since last spring. A jenny had a fine large well grown jenny by her side. In cattle Mr. Eldred is desirous of doing something to improve the stock of milk cows, and has been selecting some fine heifers, and has recently procured from Ohio four Shorthorn heifers of good quality as milkers. These heifers were in calf to the imported bull Starlight when brought up, and have brought heifer calves that promise remarka

bly well. To cross with this stock, an Ayrshire bull, of fine quality has recently been purchased in Canada; this bull was bred from the imported cow Jenny Lind, and also from an imported bull and is only three years old, is red and white in color, low on the leg and very fine boned. We have hopes that his stock will prove valuable. Mr. Eldred has recently made an addition to his swine, by the purchase of a brood sow from the famous Stickney stock of Massachusetts. This sow and family is directly from the most recent importations of Suffolk pigs made by Mr. Stickney, being by the noted boar Moses Wheeler, on the side of the sire.

While at Mr. Eldred's Mr. Brink, of Nauklin, brought up a stylish young roan horse, with very neat head, which he informs us he has received within the past two months from Virginia, and is of the Tippoo family, being claimed as a colt of that horse. Mr. Brink states that he is thoroughbred, but the horse himself does not show any thoroughbred breeding, in color, form, or general appearance. He is a stout, handsome roaster, set low on his legs, with a fine round barrel, and good strong limbs, legs rather round, short pasterns, a stout full hip and loin, and fine carriage.

At Mr. Louis Brooks' farm we found him like all the other farmers this season, pleased with the crops, and enjoying the pleasant prospect which was afforded by full barns, well secured crops, and thrifty stock. He exhibited to us his young bull, Governor, which is growing into a handsome, well-formed animal, of good quality. He is straight and finely made in all his points. The young stock of Mr. Brooks, bred from O'Gaunt, is very promising, the calves all showing good quality. The Duke stock (Duke being the large bull whose measurement we gave over three years ago, and which Mr. Brooks was obliged to kill,) is showing a wonderfully good quality. Amongst the yearlings we noted a very fine heifer, from old Yonondio, which promises remarkably well. As for John O'Gaunt, he is one of those bulls that improves on a long acquaintance. He is in good condition, and our second inspection of him has not at all lessened, but rather increased our good opinion of him as an animal of excellent quality.

The Nightingale not a Myth?

EDITOR FARMER—In your paper of August 14th, I noticed an article—"Is the Nightingale a Myth?"—in which the author thinks it is in our country. Let me assure him that there are nightingales existing in our own State. Five years since, I spent the summer in Tecumseh, (this State,) and while there became acquainted with a lady that had four young nightingales, which she informed me were taken from their home nest near Adrian. They were beautiful birds and would sing through the long hours of night, but when daylight appeared their little heads were folded "neath the wing for rest." I did not learn anything relative to their habits, their treatment, or nature, but when I do will be happy to communicate it to you.

MARY WILLSON.

White Purkey Wheat.

Henry C. Noble of Columbia, Ohio, writes to the Ohio Cultivator relative to the Purkey wheat thus:

I have had but one crop's experience and cannot therefore vouch for it further than that. I bought twelve measured bushels of this wheat, and sowed about ten of it on the 7th of September. Owing to the drill used, it was very poorly distributed, some places were well sown, and other large spots were bare. When it first came up I concluded there would be a failure in the crop. It appeared well, though thin, later in the fall, and I stood the winter very well; when it started this spring, it had a peculiar deep green color, like healthy corn. It grew well, averaged over five feet high, strong straw, and smooth, fair heads. The piece was very free from other sorts. It ripened about a week after the earliest Mediterranean, was cut with it in the neighborhood, during the wet week of harvest. It is now threshed, and from the ten bushels sown, we have received two hundred and thirty-five bushels. This wheat is described and its history given in the Agricultural Report for 1857, page 546 of Klippert's wheat book.

The Cattle Disease.

The commissioner of Patents appointed Doctors Elwyn and Emerson of Philadelphia, a committee to report upon the cattle disease in Massachusetts. That report has been prepared and sent in to the commissioner, and the *Press* thus sums up the conclusions at which the Doctors had arrived:

Dr. Emerson thinks that this malady, like the Asiatic cholera, is destined to follow a western course, and that it "manifests its presence wherever it meets with exciting causes. Cattle pent up in too narrow limits, kept on bad fare, or subjected to other unhealthy influence, calculated to enfeeble their constitutions, will be attacked by the disease, which may pass over the strong and well kept with little, if any, danger."

E. P. Prentice, of Mount Hope, near Albany, New York, has written to the editors of the *Country Gentleman*, that the disease was introduced into his herd in the fall of 1853, by one of his own cows, which had been used by his brother in Brooklyn during the summer for her milk. It about two weeks after her return home her appetite failed, her yield of milk diminished, she seemed dull and stupid; her breathing became hurried, she ground her teeth, and almost constantly continued standing, her cough increased, and there was a bloody discharge of mucus from her mouth and nostrils. After a short time she died. Three weeks subsequently two cows which had been placed in the stalls on either side of her, were attacked by the disease, and in a short time sixteen of his cattle were attacked. Of these but two recovered, and for these much less was done in the way of administering medicine, bleeding, etc., than for those which died. Mr. Prentice considers that he only prevented his whole herd (of thirty-one animals) from obtaining the disease, by a timely removal of the uninfected, and they were not permitted to return until the fall of 1854, by which time his stables were completely renovated and fumigated, and he has had no case since.

Of the four cows imported by Mr. Chenevry from Holland into Massachusetts in May, 1850, which first introduced the disease into that State, three died a short time after their arrival in this country, but in June, 1860, the fourth cow was alive and doing well. Of Mr. Chenevry's entire herd, twenty-seven died of the disease, five were killed by order of the commissioners, and the remaining twenty-five have been kept isolated. Not a new case has appeared upon his farm for months—the sick are improving, and the well show no adverse symptoms.

Three grade Dutch calves sold by Mr. Chenevry in June, 1859, to Mr. Curtis Stoddard, of North Brookfield, Massachusetts, appear to have done an immense amount of mischief in the way of spreading the disease. Mr. Leonard Stoddard (the father of Curtis) took charge of one of the calves when it appeared to be sick, and the disease was quickly communicated to his herd of forty cattle. A yoke of oxen which formed part of this herd was employed in a team of twenty-three yokes from various other quarters to move a building from Oakham to North Brookfield, and all of these yokes (except one, of which all traces are lost) are known to have become infected by the disease. Meanwhile, the herd of young Mr. Stoddard also became diseased, and in November, 1859, he sold eleven of them, which scattered the disease wherever they went. One of them is said to have infected more than two hundred others.

We have heretofore alluded to the operations of the commissioners appointed by Massachusetts to institute measures for the suppression of the disease. Up to May 29, 1860, they had ordered eight hundred and sixty-four animals to be slaughtered. Of these, one hundred and eighty-five proved, on examination, to have been diseased; and six hundred and fifty seven killed because they had been exposed to contagion or infection, were pronounced sound on subsequent examination—so that they appear to have been somewhat too summary in their destructions. About seventy had died of the disease. The commissioners have made a lengthy report of two hundred and seventy-nine pages. They consider the disease to be contagious in its nature, and say that "no case is known to have occurred where communication with diseased cattle cannot be traced."

The Massachusetts Legislature appropriated \$100,000 to carry out measures for the extirpation of the disease, and passed a law for the isolation of diseased cattle, or such as have been exposed to infection, for the reimbursement of owners whose cattle it may be necessary to kill, for branding diseased cattle with a letter "P," so as to distinguish them, for punishing all who sell, or illegally trans-

port from place to place cattle known to be diseased, and for the establishment of a hospital in which scientific practitioners may make a series of experiments with diseased cattle, in regard to the different modes of treatment. Under the last named provision, Mr. Chenevry's herd has been selected for experiment, and his place taken by the commissioners as a hospital.

The period at which the disease appears after exposure to infection varies very much. The Maine commissioners report that, "In some cases the disease is apparent within ten days after exposure; in others, twenty, thirty, sixty, ninety days, or even more, are supposed to elapse. One case is reported where the exposure was seven months previous. The more usual period appears to be not far from twenty days."

Scientific men differ in opinion in regard to this, as in regard to all other known diseases, and some contend, in opposition to the general opinion, that it is not contagious, but the facts appear to be decidedly against their theory.

The general opinion appears to be, that but few diseased cattle can be restored to usefulness, and that the best practical course to pursue is to kill all animals which are known to be diseased, and to isolate all which have been exposed to infection until it is well known that they are healthy.

The best preventive from infection is to keep the cattle in excellent condition.

As to various cures proposed, a variety of drugs are prescribed, the most effectual of which are said to be aconite, bryonia alba, caustic ammonia, phosphorus, sulphur, lobelia, and arsenic, &c. Dr. Dadd, a distinguished veterinary surgeon, considers it a "woeful error to resort to blood-letting in this malady." Cures are said to have been frequently effected by arsenic. A homeopathic physician recommends potash as a useful remedy.

The practical results of inoculation are variously represented. Strong testimony is given on both sides. As a preventive, it is held up to ridicule and scorn by one portion of those who have investigated, and, on the other hand, highly extolled by others. On this, as on nearly all other points involved in the disease, the doctors most decidedly disagree.

Care and Management of Timothy Meadows.

Timothy grass is chiefly valuable for hay; and the meadows should never be pastured while kept for mowing. In the South and West, Timothy meadows are liable to great injury, after the crop has been cut, by exposure to the burning rays of the sun in dry weather; and the injury is much increased by allowing the aftermath to be cropped by cattle and horses; and the injury is greater in the climate alluded to than it is in the cooler and more wet regions of the country where other grasses are more or less mixed with the Timothy as natural products. The roots of Timothy differ from any of the common grasses that constitute our pastures. At the base of each stool there are numerous little bulbs which lie near the surface of the ground which, when pastured by stock, are liable to be crushed beneath the animals' feet, and when the aftermath is eaten off the roots are exposed to the sun in the summer and fall, and to the frosts of winter, when in ordinary seasons the growth will not be greater than is required for the protection of the roots. All the pasturage afforded by Timothy meadows is not equal to one-quarter of the damage the succeeding hay crop sustains by allowing stock to run over them. Meadows that are never pastured will last much longer than those that are pastured, because the exposure of the roots by cropping the grass and poaching the surface of the ground, not only kills out the Timothy, but after being injured in its growth and partially killed out, weeds and inferior grasses come in and increase the evil already sustained. If in a very favorable fall the aftermath becomes so heavy as likely to interfere with the mowing machine the following season, sheep may be allowed to trim the surface, causing comparatively less injury than cattle or horses.

Blue grass and other pasture grasses, generally, are furnished with long, fibrous roots, that run to a surprising depth, and hence these grasses are not liable to the same injury by being pastured.

In order to sustain a Timothy meadow in health and vigor, and expect large and increasing crops from it, a surface dressing of old, well-rotted stable manure or rich compost, should occasionally be applied in the fall. This will afford protection to the roots during winter, and the rains and melting snows will reduce the manure to a situation which will enrich and increase the subsequent growth much beyond the cost and labor of manuring.—*Valley Farmer.*

French Horses.

The Horse Show connected with the recent French Agricultural Exhibition is thus described in the *Mark Lane Express*.

The horse exhibition was placed along the *Cour de la Reine*, where it is divided into sections, comfortable stalls, most substantially built, had been erected. The mangers were lined with zinc, and the racks were also made of galvanized iron. There were three rows of sheds; one for the stallions, one for the mares, and the third, which was divided into loose boxes, for mares with colts at foot. The whole length of the sheds was about 500 yards. They were boarded up at the back, and closed in front by substantial hangings, that were raised by day and dropped by night. A detachment of cavalry soldiers were ordered each day to attend the horses, which were liberally provided with fodder at the expense of the Government.

There were about 800 horses exhibited, besides a few asses of a very large kind, used for the breeding of mules in Poitou and the Prennoss; and, certainly, any thing more uncouth and ugly it would be difficult to conceive, than the ungainly, long-eared, big-limbed, and shaggy-haired brutes we saw exhibited under the name of Poitou Asinine breed, although we were told that six hundred guineas had been bid for the first prize animal, a vicious and hideous brute, setting up every now and then such a yell, in which his kindred heartily joined, that it sufficed to put all bystanders to flight.

There were only two classes; the first comprising the horses, the second the asses. These two classes were subdivided into categories and sections. The amount of the prizes offered for the horse class, irrespective of the gold, silver and bronze medals, amounted to more than seven thousand pounds! and for the asses, of which there were very few—not more than seven or eight—to £232. The horse class was divided into six categories, comprising, 1, the thoroughbred horses; 2, the half-bred coaching horses; 3, the half-bred light-weight horses; 4, heavy-draught horses; 5, light-draught horses; 6, horses kept for the breeding of mules. Each category was subdivided into sections, each comprising peculiar breeds, or those horses bred in various districts of France. Thus the first category, that of the blood horses, comprised three sections, viz.: pure English blood, pure Arab, and pure Anglo-Arab.

The second category was subdivided into three sections, comprising, 1, horses bred in the departments of the province of Normandy; 2, those bred in Poitou, Saint Omer, and Anjou; and 3, those less distinctive races bred in any other district. This will suffice to give an idea how the exhibition was arranged, the desire of the managing committee being evidently to group the principal French breeds together. Among these, the most remarkable for their merits and distinctive points may be enumerated and described as follows:—The Norman horses, generally half-bred, and principally used for carriage purposes; of these, there were 17 exhibited, many of them very useful horses, bearing unmistakable signs of English blood and mettle. Next came the Breton horses, generally of an iron-grey color. There were 86 horses of this useful breed, divided into light weight, half-bred heavy and light-draught classes. These horses, many of which are imported into the West of England, are strong, enduring, and indefatigable; but they generally lack mettle, and are very slow walkers. Having known the breed for many years, we may state that it has been greatly improved of late, and its representatives at the Paris exhibition certainly formed one of the most meritorious classes in the horse-show. The far-famed Percheronne breed comprised 53 horses of both heavy and light draught. This race of horses, which unfortunately seems to be on the wane as a distinctive breed, so diluted its blood appears to be by random and injudicious crossings, is chiefly bred in the department of Orne. It is light-grey in color, almost merging into white about the neck and head; but there were many animals exhibited in this class, who had not even this characteristic point to show their dindred. Some of the brood-mares were splendid, exhibiting every feature and point of excellence for which this breed was in olden times held in so much esteem and repute.

Among the heavy and light-draught horses, and especially for the latter purpose, we have again a very valuable breed, called the Boulongaise, from the North of France. Before the railway era these horses were chiefly bred for bringing fish supplies from Boulogne and Calais to Paris. They have, of course, been somewhat neglected of late, their peculiar usefulness being totally cancelled by the railway mode for transport; but it presents still many valuable qualities, which, especially in

the eye of the Boulogne breeders, give it a great value, and it must be said, a somewhat overdue appreciation of its excellence. In the year 1856, at the Chelmsford meeting of the Royal Agricultural Society of England, there were several good specimens of this breed, although they failed to enlist on the part of Englishmen an equal amount of enthusiastic admiration as was expressed by their owners. Their principal merit consists in their trotting powers and the long stride which their muscular legs enable them to take. These are the principal distinct breeds of France; all the others, although they bear on the catalogue some distinctive appellations, do not appear to possess any characteristic mark, or any fixed point which may stamp them as an established breed peculiar for its purpose or even native promise. There were altogether 765 entries of horses and 23 of asses. Altogether, this department of the Great Exhibition was more interesting, from its collective and comparative character, than from any extraordinary merit in the animals exhibited; and it may be said, without any disparagement of our neighbors, that they must make yet a much greater advance in the process of improving their breeds of horses, before they can reach the standard attained in England.

Value of Liquid Manure.

Prof. Sprengel, the celebrated German chemist, asserts that each cow produces annually 18,000 lbs. of urine, which contains of solid matter 900 lbs. This solid matter is equal to the best guano, weight for weight, so that the liquid manure of every cow kept on a farm for one year, is worth, when applied to the crops, more than twenty dollars annually, and so in proportion to all the rest of the domestic animals. It may be said that in no other department of rural economy does the American farmer lose so much by neglect, as the management of solid and liquid manure.

In a former article we have treated of the management of liquid manure in Belgium. We will now describe the manner in which it is preserved and applied to the soil in Switzerland, where the farmers are particularly careful that no portion of the urine of their cattle or the waste water of their household establishments in the shape of soap suds, &c., should be lost. The Swiss farmer prepares a square plot of ground in the vicinity of the homestead, varying in dimensions according to the quantity of manure intended to be put upon it. This is compressed and beaten firm, in order that the juices may not penetrate the soil, which is surrounded on nearly all sides by a wide and tolerably deep trench, made also impervious to water. Upon this bottom the litter from the *Vacherie* or cow house is periodically deposited; not in a loose and slovenly manner, but with all the neatness and precision which is generally observed in newly-made hay rick. The outer walls bordering on the trench are constructed of the longest litter, and the interior of the heap is made up of the vegetable refuse of the farm and garden, and of all the coarse and worthless herbage that can be collected.

It will be readily understood that the trench which surrounds the heap is intended to receive the liquid which exudes therefrom, and not only this, but the drainings of the yards and cattle sheds are added thereto. During the process of enlarging the heap the liquor from the trench is continually scooped up with shovels and thrown over the layers of solid manure, which process is repeated until the whole is in a state of decomposition, and reduced to the form of what is called spit-manure. When the manure is required for use, it is cut down in slices and thrown into the trench, where it is blended or puddled into a pulpy liquid, in order to be removed to the land where it is to be applied. When the grain crops are removed from the fields, the land is handpicked by women and children of stubble, weeds, and all other species of herbage, all of which are removed to the homestead to undergo the process previously described. When the land is perfectly cleaned it is plowed and sown with turnips or rape seed. The puddle manure is now put in requisition; it is brought to the fields by means of immensely large barrels, on two or four wheels, which we would call water-carts, but which the French designate by the term *fouisse mobile* or moveable ditch. The end of this vessel is supplied with an aperture about the size and shape of a pigeon hole in a dove-cote, which is opened or closed by a valve and trap stick to admit of the contents being let off into a stand placed underneath for the convenience of dipping smaller vessels, from which the dressing of puddle-manure is removed by hand and deposited immediately at the roots of the plant, which being supplied with food easy of digestion, makes a "comfortable meal," as Mr. Mechi expresses it, grows rapidly, and produces larger bulbs than can be obtained by any other process, thus late in the season.

Trot at Adrian. The trotting match between G. L. Bidwells, b. g. American Star, and S. DeGolyer's b. g. Quaker Boy, on Prairie Course, at Adrian, on Friday, August 17th, purse \$600 aside—best three in five—was won by Quaker Boy. Time 2:48, 2:50, 2:51.

Cure for the Scratches. I have a horse that was so bad with the scratches the past spring, that I could scarcely work him—in fact, he could hardly walk sometimes, and I cured him with this simple remedy, which I had from a neighbor, who says he never saw it fail in the worst case.—Take fresh slaked lime, and dust the affected part well with it, twice a day. It will not cause the horse any uneasiness, and will be sure to effect a cure in a few days.—*Stock Journal.*

Milk Becoming Thick while Sweet. In regard to an inquiry on this subject in our issue for August 4th, a correspondent at Woodstock, Vt., states that a few years since he fed a cow on "cut feed" mixed with Indian meal. After she had eaten two or three bushels of meal, the quantity of milk became less and the quality richer, and in a few minutes after the milk was drawn it became thick, like jelly, yet remained perfectly sweet. He says he "cut short" the meal and there was no further trouble.

Underdraining.

The *London Farmer's Magazine*, gives the following twenty reasons as to the advantage of underdraining:

1. It prevents drought.
2. It furnishes an increased supply of atmospheric fertilizers.—
3. It warms the lower portions of the soil.—
4. It hastens the decomposition of roots and other organic matter.
5. It accelerates the disintegration of the mineral matters in the soil.
6. It causes a more even distribution of nutritious matters among those parts of the soil traversed by roots.
7. It improves the mechanical texture of the soil.
8. It causes the poisonous excretions of plants to be carried out of reach of their roots.
9. It prevents grasses from running out.
10. It enables us to deepen the surface soil by removing excess of water.
11. It renders soil earlier in the spring.
12. It prevents the throwing out of grain in winter.
13. It allows us to work sooner after rains.
14. It keeps off the effects of cold weather longer in the fall.
15. It prevents the formation of *acetic* and other acids, which induce the growth of sorrel and similar weeds.
16. It hastens the decay of vegetable matter, and the finer comminution of the earthy parts of the soil.
17. It prevents, in a great measure, the evaporation of water, and the consequent abstraction of heat from the soil.
18. It admits fresh quantities of water from rains, &c., which are always more or less imbued with the fertilizing gases of the atmosphere, to be deposited among the absorbent parts of soil, and given up to the necessities of plants.
19. It prevents the formation of so hard a crust on the surface of the soil as is customary on heavy lands.
20. It prevents, in a great measure, grass and winter grains from being *winter-killed*.

FARM NOTES.

Wheat in Tuscola County.

The wheat crop in this county proves to be fully up in quantity and quality to the expectations of the most sanguine. We hear of several lots already threshed, averaging 30 bushels to the acre, and the average yield is estimated by many not to be much less than that amount. We think it safe to estimate it at from 22 to 28 bushels. Considerable wheat has already been purchased by the Vassar Mills Company. The flour manufactured from it some of which we have had occasion to test, is of a superior quality. The price is fluctuating, and will be likely to remain so for several weeks. We have no doubt that enough wheat has been raised in this county the present season to supply home consumption, and glad should we be if farmers were able to retain it for that purpose.—This they cannot all do, and the consequence is, large amounts will be sold early at a low figure, and carried out of the county.—*Pioneer.*

Arabian Horses.

Gov. Seward has received notice of the shipment of three Arabian Horses, (one stallion and two mares,) by Aysle Beg Tararulsky, of Beyrouth, who presented them to him, for the purpose of introducing the pure Arabian breed into this country. They are expected to arrive at Boston within a short time, when they will be taken to the farm of Hon. G. V. Sackett, of Seneca county, and will be exhibited only at the Cayuga County (N. Y.) Fair and at the State Fair at Elmira. The State Agricultural Society, we understand, will have charge of the horse and one of the mares, for breeding, so as to carry out the wishes of Mr. Tararulsky.

Trot at Adrian.

The trotting match between G. L. Bidwells, b. g. American Star, and S. DeGolyer's b. g. Quaker Boy, on Prairie Course, at Adrian, on Friday, August 17th, purse \$600 aside—best three in five—was won by Quaker Boy. Time 2:48, 2:50, 2:51.

Cure for the Scratches.

I have a horse that was so bad with the scratches the past spring, that I could scarcely work him—in fact, he could hardly walk sometimes, and I cured him with this simple remedy, which I had from a neighbor, who says he never saw it fail in the worst case.—Take fresh slaked lime, and dust the affected part well with it, twice a day. It will not cause the horse any uneasiness, and will be sure to effect a cure in a few days.—*Stock Journal.*

The Garden & Orchard.**Summer Fruits at our Fairs—Their Preservation.**

As the time is rapidly approaching for our annual agricultural gatherings, we will venture a few hints respecting the preservation and exhibition of a class of fruits, which, notwithstanding their importance, and the high estimate generally set upon them, are seldom adequately represented at our fairs. We allude to the summer fruits, and such as are usually out of season before the time of our annual exhibitions.

Occasionally a painstaking amateur will preserve and exhibit a fine collection of such fruits; but, notwithstanding the liberal premiums offered, they frequently fail to draw out competitors, and the prizes go, by default, to unworthy candidates. This is not as it should be, and is by no means to be attributed to any real difficulty in the preservation of such fruits, but, probably, to a neglect to select and put aside specimens of each at the season of maturity. The earliest apples may generally be kept in a good cellar, till the time of our annual fairs, although, with the loss of their flavor and juiciness; but, by the help of an ordinary ice house, their more complete preservation becomes an easy matter.

Fruits, to be so kept, should be carefully hand-picked, a little before they are fully ripe; and should be handled with the utmost care, as the slightest bruise will be likely to induce decay. If they are to be kept in the cellar, they should be carefully packed in *wheat bran*, or some similar substance, which, while it shuts them from contact with the air, will not affect their flavor. If they are to be placed in an ice house, it will be sufficient to merely place them, loosely, in a covered box or cask. The vessel should then be placed in a cavity, made by removing a portion of the upper layer or layers of ice; after which the usual covering of straw, or other non-conductor may be spread over the whole. Fruits preserved in this manner should not be removed until needed for exhibition, as they decay rapidly when again submitted to the action of the warmer atmosphere.

The exhibition of this class of fruits becomes a matter of the more importance, when we consider that, owing to their perishable character, we have but comparatively few opportunities for their comparison, and for the identification of doubtful kinds, of which there are many in the country; while our common varieties are, not unfrequently, grown under local names. It is, therefore, to be hoped that cultivators, in the various parts of the country may be induced to preserve specimens of the fruits they esteem worthy of notice, and to come with them to the next State fair, to be held at Detroit, during the first week in October next.

The Executive Committee, as will be seen by an examination of the premium list recently published, have offered an additional premium of ten dollars for the best total collection of fruits. Collections competing for other premiums are to be allowed to compete also for this which is also open to both professional exhibitors and amateurs.

T. T. LYON.

Plymouth, Aug. 20th, 1860.

Fruit at Kalamazoo.

The *Telegraph*, a short time ago gave a fine description of the improvements being made by H. Arnold, Esq., of Kalamazoo, upon his farm in the vicinity of that place. The same authority gives the following summary of what others are doing around that city:

Kalamazoo is already well-known far and wide for the excellence, variety and abundance of its fruit—and perhaps it is not too much to say that it is one of the very best fruit-growing regions in the State. But what has heretofore been done was but a faint beginning, compared with the movements which are now on foot for extensive fruit culture.—We have gathered a few items which will give some idea of what may be expected in a few years.

In our notice of Mr. Arnold's improvements, we spoke of his preparations for fruit. He has over 15,000 peaches, 200 pears, a large vineyard, all of the choicest varieties, and ready for bearing next season. In addition, he will plant as many more next fall.

Mr. P. C. Davis, of this village, is doing a similar work on his place, on the side hill, in the southwest part of the village, a spot peculiarly adapted for the successful culture of the pear, which is Mr. D.'s *specialty*. He has now over 400 bearing trees, embracing all the varieties. There are also a great number of peach trees, some cherry and plum, and a fine variety of grapes. His Concords, Re-

becca, Delawares, Catawbas and Isabellas are in bearing this season. He has a few choice varieties of apples.

His brother, Mr. E. Davis, has also a most promising vineyard of the Isabella, Catawba, and a variety of fruit trees.

Mr. Geo. Kidder is now preparing an admirable piece of ground, just west of the village, for the reception of a choice lot of fruit trees. There are thirty-two acres in the piece, and the larger portion of it will be devoted to the cultivation of the pear.

Mr. S. Johnson, of the Highland Nursery, whose reputation as a fruit-grower is widely known, is adding to his stock of fruit continually. Mr. H. D. Adams, of Comstock, will soon have one of the finest orchards in the country. Hon. Samuel Clark, in the same town, who has already a magnificent orchard, one of the finest sights in the country at this time, has added largely to the number of his trees.

But the subject grows upon us and we must stop. We have said nothing of the doings in this line of George and Jas. Taylor and a score of others, professional and amateur, who are now conspiring to make Kalamazoo the finest fruit market in the west, nor of the effects of our farmers, throughout the country, to the same end.

In another article we shall speak of the numerous vineries and the extensive preparations, made and making for the cultivation of the grape under glass.

The Science of Gardening.**THE FLOWER.**

The organs of fructification are absolutely necessary, and are always producible by garden plants properly cultivated. They may be deficient in leaves, stems, or roots because other organs may supply their places; but plants are never capable of bearing flowers and seeds, for without these they can never fully attain the object of their creation—the increase of their species.

Every flower is composed of one or more of the following parts—viz.: the calyx, which is usually green and enveloping the flower whilst in the bud; the corolla or petals, leaves so beautifully colored, and so delicate in most flowers; the stamens, or male portion of the flower secreting the pollen, or impregnating powder; the pistils, or female portion, impregnable by the pollen, and rendering fertile the seeds; and lastly, the pericarp or seed-vessel.

Their organization closely resembles that of the branch by which they are borne, and they are only its parts taking other forms.—"Tracing," says the late Mr. Knight, "the progress of the organization in the full grown fruits of the Apple and Pear, I found, as Linnaeus has described, that the medulla, or pith, appeared to end in the pistils. The central vessels diverged round the core, and approaching each other again in the eye of the fruit, seemed to end in ten points at the base of the stamens, to which, I believe, they give existence. The spiral tubes, which are, in all other parts, appendages to these vessels, I could not trace beyond the commencement of the core; but as the vessels themselves extend through the whole fruit, it is probable that the spiral tubes may have escaped my observation."

Although the medulla is traced to the base of the pistils, the central vessels to the part enveloping the seed, and to the stamens, and the spiral vessels throughout the fruit, yet over every part is extended the parenchyma and epidermis, and the sap circulates through the entire of the flower and fruit,—ascending being elaborated, and descending,—as regularly as though other parts of the plant.—Colored infusions may be traced through the vessels in the stem to the fruit, and if a ligature be passed round a Peach or an Apple, the enlargement is greatest above—that is, between the ligature and the footstalk; and Mr. Knight succeeded, by intergrafting, in proving that the footstalk, the tendril of the Vine, the fruitstalk, and the succulent point of the annual shoot, may be substituted for each other,—a bunch of Grapes grew and ripened when grafted upon the footstalk; and a succulent young shoot of the Vine, under the same circumstances, acquired a growth of many feet.

The stamens can be removed without preventing the formation of fertile seed; but their loss must be supplied by the introduction to the pistils of pollen from some kindred flower.

The calyx is not useless so soon as it ceases to envelop and protect the flower, for the flowerstalk continues increasing in size until the seed is perfected, but ceases to do so in those plants whose calyces remain long green if these be removed. On the other hand, in the Poppy, and other flowers from which the

calyx falls early, the flowerstalk does not subsequently enlarge.

The corolla, or petals, with all their varied tints and perfumes, have more important offices to perform than thus to delight the sense of mankind. Those bright colors and their perfumed honey serve to attract insects, which are the chief, and often essential, assistants of impregnation; and those petals, as observed by Linnaeus, serve as wings, giving a motion, assisting to effect the same important process. But they have a still more essential office; for although they are absent from some plants, yet, in many plants, if removed from those possessing them before impregnation is completed, the fertilization never takes place. They, therefore, perform in such cases an essential part in the vegetable economy; and that they do so is testified by all the phenomena they exhibit. They turn to the sun, open only when it has a certain degree of power, and close at the setting of that luminary; their secretions are usually more odorous, more saccharine, and totally differing from those of the other organs of plants; and in the absence of light those secretions are not formed.

The corolla is absent in some plants, the Willow for example. But where it exists it is not always short lived; for although in some as the Cistus, the petals which open with the rising sun, strew the border as it departs; so some, far from being ephemeral, continue until the fruit is perfected. The duration of the petals, however, is intimately connected with the impregnation of the seed, for in most flowers they fade soon after this is completed; and double flowers, in which it occurs not at all, are always longer enduring than single flowers, of the same species. Then, again, in some flowers they become green, and perform the functions of leaves after impregnation has been effected. A familiar example occurs in the Christmas Rose (*Helleborus niger*) the petals of which are white, but which become green so soon as the seeds have increased in size, and the stamens and other organs connected with fertility have fallen off.

It is quite true that some fruit will not ripen if the part of the branch beyond is denuded of leaves; but this only shows that those fruits cannot advance when deprived of leaves as well as of calyx and corolla,—the only organs for elaborating the sap; and there are some flowers, as the *Daphne mezereum*, autumn Crocus, and Sloe, that have their flowers perfected and passed away before the leaves have even appeared.

That the petals, in most plants perform an important part in elaborating the sap supplied to the fruit, is further proved by the flower being unable to bloom or to be fertile in an atmosphere deprived of its oxygen; and by their absorbing more of that gas, and evolving more carbonic acid than even a larger surface of leaves of the same plant.

Northern Grapes and Wine.

John C. Kellogg writes to the *Canadian Agriculturist* relative to grapes and wine making in Canada, a letter which we copy. It gives us hopes that we may have our vineyards here at the North, with crops as luscious as Longworth's own:

"With great pleasure I notice in your last issue some communications on the subject of wine growing in Canada. The subject is not altogether new to this locality. Three years ago, four or five barrels of wine were grown from a single vine in one season in the township of Grimsby. The grape is a native, and the wine very much resembles port, so much so that persons tasting it for the first time frequently speak of the similarity. It is perfectly hardy, and stands our coldest winters without in the least destroying its vitality. I obtained a vine six years ago last spring, it now covers some forty feet square of trellis, and, I think, has at least twelve hundred clusters of grapes. The clusters are about the size of the Clintons. The wine sells in this locality for one dollar and three-quarters per gallon, and probably would bring more if we asked it; at all events, it is worth four times as much as the miserable stuff generally sold by our merchants under the name of wine. We intend to show our wine at the Provincial Fair this fall, and hope the judges will publish their opinion of the same. We have in this part of Canada a number of the new native grapes, a good representation of which will no doubt find their way to the Provincial Fair this fall; and we advise all who feel an interest in this important branch of our agriculture to keep their eyes wide open, as they will be likely to see many things in this department that will surprise them.—We have open air grapes that will vie in size and flavor with the far famed Black Hamburg, and I think there is not the least reason to doubt that we can grow wine in any quantity and of exceeding quality. I have grapes that will measure to-day over two inches in circumference to the single berry, and number over fifty berries to the cluster. I fear that I am trespassing too much on your time and patience, but if you think these few thoughts likely to benefit your readers, you are at liberty to publish them. If these remarks meet your approbation, I may give you some more of my notes on horticultural matters."

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Hardy Variegated Trees.

The human mind delights in variety. If everything were green, or, indeed, any other color, the sameness would be far from pleasant; hence the great Creator has given to flowers various hues to delight His creatures, at least, His chief creature, man, and given him powers of mind to delight in variety of shade and color. How glorious are the tints that the foliage of trees take in the autumn! and how the artists revel in their rich shades at that season of the year! It is this love of variety that has brought plants with colored leaves into so great estimation; and to supply that estimation with more numerous objects, nurserymen and collectors have striven, and with great success, to discover, raise, and increase them, so as to bring them within reach of all cultivators desirous of growing them. There are, however, considerable numbers of cultivators who would purchase them, but are ignorant of the many varieties that are waiting their orders. To give that knowledge is my object in drawing up the following lists of variegated trees and shrubs. I shall not only give the names of the variegated-leaved varieties, but also such as have leaves of different colors to green—such for instance, as the well known purple-leaved Beech. I would premise, however, that trees with variegated and colored leaves are not as yet very numerous, neither is it, in my opinion, so desirable; because the foliage of a tree is so elevated from the sight that the variegation does not appear to so great an advantage as on the more humble class of shrubs. This does not, it is true, apply to self entire-colored leaves on trees—such, indeed, show to advantage however lofty they may grow. A group of the dark-leaved Beech, for instance, contrasts beautifully, even at a considerable distance, with the green foliage of other trees. A woodland-walk or carriage drive might be agreeably diversified by a group of variegated trees. The mass would have an effect, whereas an isolated striped Elm or Oak would be hardly observable. Many an open glade in forest land might be occupied with three or five beautiful-leaved trees, which, in such a situation, would be seen to advantage, and, no doubt, greatly admired. Where the pleasure ground is extensive, a single fine specimen of the purple-leaved Beech, Elm, or Sycamore, would have a good effect.

With these few premising remarks, I now proceed to give the names of trees with various colored and striped leaves. To increase them they must be grafted, inarching or budding. *Acer campestre variegatum.* (The striped-leaved Maple.) Britain. *A. platanoides variegatum* (The Plane-like Maple.) Europe. *A. pseudo-platanus variegatum* (The false Plane tree or Sycamore.) Britain. *A. rubrum variegatum aureum* (The red-flowered golden variegated Maple.) North America. *A. rubrum variegatum argenteum* (The red-flowered silver-striped Maple.) North America. *Esculus hippocastanum foliis argenteis* (The silver-leaved Horse Chestnut.) British Gardens. *A. hippocastanum variegatum* (The common striped-leaved Horse Chestnut.) British Gardens. *Betula alba foliis variegatis* (The striped-leaved White Birch.) A truly elegant tree. Native of Britain.

Castanea vesca foliis aureis (The golden-leaved Chestnut.) British Gardens. *C. vesca variegata* (Silver-striped Chestnut.) Gardens.

C. vesca chrysophylla (The Golden Chestnut of California.) Foliage dark green on the upper surface, and a rich golden color underneath. This beautiful tree is of recent introduction; and to add to its value as an ornament to our plantations, it is ever-green and perfectly hardy. It will, most likely, come true from seeds. It is at present high in price.

Cerasus Caproniana variegata (The Hautbois Cherries with striped leaves.) South of Europe. *C. padus argentea* (The silver-leaved Bird Cherry.) Britain.

Fagus purpurea (The Purple Beech.) Germany.

F. sylvatica atro-rubens (The dark-red-leaved Beech.) Britain.

F. sylvatica cyprea (The copper-colored Beech.) Britain.

F. sylvatica foliis argenteis (The silver-leaved Beech.) Britain.

F. sylvatica foliis aureis (The golden-leaved Beech.) Britain.

F. excelsior atra virens aurea (The golden-barked dark-green-leaved Ash.)

F. excelsior lutea (The yellow-margined Ash.)

F. heterophylla variegata (The variegated various-leaved Ash.)

F. virens variegata (The green variegated-leaved Ash.)

Juniperus Virginiana argentea (The silver-striped Red Virginian Juniper.)

J. Virginiana aurea (The gold-striped Red Virginian Juniper.)

Populus balsamifera variegata (The variegated Balsam Poplar.)

Pyrus aucuparia foliis variegatis (The striped-leaved Mountain Ash.) Britain.

P. communis (The variegated-leaved common Pear.) Britain.

P. nivalis (The snowy-leaved Pear.) Austria.

Quercus cerris variegata (The variegated-leaved Turkey Oak.) S. of Europe.

Q. coccinea (The scarlet-leaved Oak.) N. America.

Q. ilicis variegata (The striped-leaved Holly Oak.) France.

Q. pedunculata foliis variegatis (The striped-leaved long-stalked common Oak.)—Britain.

Q. pedunculata purpurea (The purple-leaved common Oak.) Britain.

Q. sessiliflora pubescens (The silver-haired stalkless Oak.) Britain.

Tilia Europaea platyphylla aurea (The golden-leaved broad-leaved European Lime.) Britain.

T. Europaea variegata (The striped-leaved European Lime.)

Ulmus Americana foliis variegatis (The variegated American Elm.)

U. campestris foliis aureis (The golden-striped-leaved English field Elm.)

U. campestris foliis argenteis (The silver-striped-leaved English field Elm.)

U. glabra variegata (The variegated smooth Elm.) Britain.

U. montana purpurea (The purple-leaved Scotch Elm.)

U. suberosa foliis variegatis (The variegated Cork-bark Elm.) Britain.—T. APPLEY, in *Cottage Gardener*.

HORTICULTURAL NOTES.**Grape Growing.**

Wm. Bright of the Logan Nurseries, the great master in grape growing, is willing to offer \$200 as a wager that his system is the best, and Meehan of the *Gardener's Monthly*, whilst declining to publish the wager, says that a visit to his viney is far more convincing than any bet, and adds, "a more beautiful sight we have never seen."

Mr. Bright asserts that the grape will bear a heat of 212 degrees, if plenty of moisture is supplied; if not, mildew ensues.

A Cheap Mower.

A correspondent of the *London Cottage Gardner* keeps a sheep or two of the Bretagne breed,—miniature little fellows, not weighing more than 17 pounds—and when the lawn is not too wet, encloses them in small wire hurdles, shifting them daily, and not only saves mowing thereby, but, in addition to the enjoyment of the pet animals, has a much better lawn than mowing could ever accomplish.

Wearing out of Peach Trees.

The Household.

"She looketh well to the ways of her household, and setteth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

LITTLE WILLIE AND THE APPLE.

Little Willie stood under an apple tree old. The fruit was all shining with crimson and gold, Hanging temptingly low;—how he longed for a bite, Though he knew if he took one it wouldn't be right.

Said he: "I don't see why my father should say 'Don't touch the old apple tree, Willie, to day.' Shouldn't have thought—now they're hanging so low—When I asked for just one, he should answer me 'No.'

"He would never find out if I took but just one, And they do look so good, shining out in the sun, There are hundreds and hundreds, and he wouldn't miss So paltry a little red apple as this."

He stretched forth his hand, but a low, mournful strain Came wandering dreamily over his brain; In his bosom a beautiful harp had long laid, That the angel of conscience quite frequently played.

And he sang: "Little Willie, beware, O, beware, Your father is gone but your Maker is there; How sad you would feel if you heard the Lord say, 'This dear little boy stole an apple to-day.'"

Then Willie turned round, and as still as a mouse, Crept slowly and carefully into the house; In his own little chamber he knelt down to pray That the Lord would forgive him and please not to say, "Little Willie almost stole an apple to-day."

Tight Dressing—Its bad Effects.

FROM ELLIS'S AVOIDABLE CAUSES OF DISEASE.

The greatest possible distortion of the human chest and waist may be caused without ever using a particle of force, simply by pinning or hooking or even buttoning the garments around the body; and thousands are thus destroying themselves without ever suspecting the cause of their failing health. Does the reader ask how it is done? I will tell you.

The chest above the ribs expands about an inch in its circumference during inhalation. If when the air in her lungs is expelled a lady simply pins, hooks, laces or buttons her garments snug around her chest, without using any force, the chest cannot expand when she draws in her breath, into about one inch as much as before her dress was fastened, and she feels a slight degree of tightness for a short time, when her breathing becomes very good, except upon active exertion. The air is not all expelled from the air cells after exhalation, but a large quantity remains, and when owing to tight dresses the walls of the chest cannot expand—as the lungs must do the best they can under the circumstances—a portion of the air which ordinarily remains after exhalation is forced out, so that the air cells continue to act, but receive less air, and are diminished in size. Now, when the walls of the chest and air cells become accustomed to their present state of contraction, by the time the lady is ready to have another dress made, there will be no difficulty in making it about one inch smaller, and yet pinning it when the air is expelled from the lungs without using any force; and thus step by step the chest may, in a short time, be brought into the contracted form we witness in our streets, and which are represented in the caricatures of a true or natural human form, which appear in our popular periodicals. Of course by the aid of laces which are daily tightened, this mischief can be accomplished more readily and rapidly.

You can hardly astonish a majority of our ladies more than to tell them that they dress too tight. They know that ladies do sometimes dress or lace too tight, and will often refer to such and such ladies as examples, and the ladies to whom they refer, will perhaps point right back to them as striking examples, for none of them, uninstructed, realize that they dress tight. I have never found a lady who, upon the first accusation, acknowledged that she dressed tight. I have found those who admit that they had formerly dressed too tight, when I have called their attention to their deformed waist, but generally they will, with apparent sincerity, assert that they were born so, and that their present is only their natural form. A young lady from the country, a few years ago, came into my office to consult me in regard to a supposed tumor in the region of the stomach. Upon examination, I found one of the most contracted waists I have ever seen, caused by tight dressing. She had followed the habit a long time until the ribs had become fixed to their unnatural position, when, the very moment she loosened her dress, the much abused liver, stomach and spleen, pressed out the yielding abdominal walls, immediately below the breast bone, and between the cartilages of the ribs, presenting the appearance of a tumor, which of course was very tender to the touch. I frankly explained to her the character of the tumor, and told her that it was caused by tight dressing. In amazement she caught hold of her dress to show me how loose it was, and exclaimed: "Why! you

don't think I dress tight, do you?" From that time to this, I have not often tried to make a lady acknowledge her dress was tight. But I do say without any hesitation, that the instances in which the ladies of our country do not dress too tight are the rare exceptions to the general rule; so rare that few can be found at any age, and I doubt if ten ladies, American born, between the ages of fourteen and twenty-five or thirty, can be found in the city of Detroit, or in any other city in the United States, who are not at present distorting their forms, laying the foundation for future disease, and slowly, but surely destroying their health, and shortening their lives from wearing tight dresses. It is all important for the preservation of health and life that there should be a chance for the full action of the lungs, unrestrained by the clothing. How many of the ladies of our land can draw in a full breath without heaving up the shoulders? It is doubtful if one in a thousand, when she shall read this, can even fairly begin to expand her chest within her present dress.

In healthy respiration the thorax, or chest, expands freely in every direction, but more freely around the central and lower portions. If we examine the human skeleton, we shall find that special provision has been made for this freedom of motion about the waist, by having the lower ribs terminate in longer cartilages, or elastic gristly structures, instead of bone, which connect the ends of the ribs with the breast bone or sternum. The cartilage connecting the upper rib with the sternum is less than an inch long, but this structure as we descend from rib to rib, will be found to grow longer until those from the lower ribs, with the exception of the floating ribs which are not thus connected with the breast bone, are several inches long.

Almost every lady may be made to convict herself, in two minutes conversation, of tight dressing; and that, too, by giving in almost voluntarily, testimony which cannot be gainsaid. Say to the next lady you meet, if you please, "Mamie, do you wear tight dresses?" She will be very sure to say, "No," "Is the dress you have on comfortable?" "Certainly, very comfortable," she will reply. "You feel better in it than in a loose dress, do you?" "Yes," she will be very sure to reply, "I feel better in this dress than I do in a loose dress; for I feel the want of support in a loose dress; I feel all gone"—very much like the rumdrinker when without his accustomed dram. Here you have the testimony. Why does she feel better in her tight dress than she does in a loose dress? Simply because she has dressed tight, and her dress is tight, and she has taken off, or destroyed the natural action of the muscles, and substituted cotton, linen, and perhaps whalebone. Every gentleman who has not made a fool of himself by apeing the ladies, understands very well that he is just as comfortable in a loose dress, and much better supported than he would be in a loose dress, and much better supported than he would be in a tight dress. Then, when a lady feels that she is not properly supported, and does not feel comfortable in a loose dress, she has positive evidence that she not only dresses too tight, but that she has to a greater or less degree destroyed the natural activity of the muscles, and therefore render them incapable of supporting the body erect, and that deformity and disease must surely follow soon, unless she ceases this evil practice.

Household Varieties.

A SHARP student was called up by the worthy professor of a celebrated college, and asked the question:

"Can a man see without eyes?"

"Yes, sir," was the prompt reply.

"How, sir," said the amazed professor, "can a man see without eyes? Pray, sir, how do you make that out?"

"He can see with one, sir," replied the ready-witted youth; and the whole class shuddered with delight at his triumph over metaphysics.

Two young ladies of Philadelphia were lately spending the summer in northeastern New York. During their visit they took several rides about the country with their host. On one of these occasions, as they had been traveling some distance, and the day was warm, and as a trough containing water stood invitingly by the road-side, they concluded to give their pony a drink. One of the ladies agreed to get out and arrange matters for this purpose. The others remaining in the carriage, and deeply engaged in conversation, for some time paid no attention to the proceedings of their companion. When, at last, surprised at the long delay, they turned to ascertain the cause, they discovered her unbuttoning the crupper! In amazement, they inquired, "What are you doing that for?" To which she naively replied: "Why, I am unbuttoning this strap to let the horse's head down so he can drink!"

A young man, becoming engaged recently, was desirous of presenting his intended with a ring appropriately inscribed; but being at a loss what to have engraved on it, called upon his father for advice. "Well, said the old man, "put on 'When this you see remember me!'" The young lady was much surprised, a few days after, at receiving a beautiful ring with this inscription, "When this you see, remember father!"

THE WORST BOY IN SCHOOL.

BY MRS. CAROLINE A. SOULE.

"Is that one of my scholars?"

Miss Merton, the new teacher, pointed to a lad just outside the garden fence. He was ragged and dirty; barefooted too, and wore an old straw hat, so much in pieces that his tangled locks stuck up "every which way" through the holes. He was throwing stones at a robin's nest that hung high up in a cherry tree, and screeching all the while in a way that made one involuntarily clasp his hands to his ears.

"I am sorry to say it is," replied Deacon Gray. "The worst boy in school, too, one that will make you the most trouble—Indeed I don't believe you will ever be able to do anything with him. He's as strong as a giant, little short fellow as he is. He flogged the teacher last winter and left him for dead. He's the worst boy, take him all in all, I ever saw."

"Has he parents?"

"No; his mother died when he was a baby, and his father, a hard-working man, hadn't any time to see to him, and the child, I expect, had a pretty hard time of it, with one old maid and another for housekeeper. When he was five years old, his father died, and since that he has been tossed from pillar to post. He's naturally a bright boy, and if his mother had lived he might have been somebody, for she was just one of the most patient, loving woman you ever saw in all your life; a Christian woman, if there ever was one."

"Poor boy!" Miss Merton spoke tenderly. "What a pity somebody don't adopt him, and take him into their home and heart."

"That's just what I've told father many a time," said Mrs. Gray, looking up from the bread she was kneading. "I've always said if some one would only take him in and do by him as they would by their own child, it would be the salvation of him."

"Mother wanted I should take him this spring, when he was out of his place, but I told her it was too risky. If I hadn't any children I might perhaps, but to have such a rough, tearing, swearing, mischievous boy here all the time with my three little girls, learning all sorts of badness to that youngster there" and he pointed to a two year old boy who sat on the floor, playing with pussy; "I couldn't risk it no way. Yet I'm sorry for him."

"That's what everybody says," continued his wife. "They are all sorry for him, but no one is willing to try to reform him, and if it ain't done soon, it'll be too late, for just as sure as he goes on the way he is now, he'll be in the penitentiary before he's twenty-one."

"I wish you had taken him in," Miss Merton spoke earnestly.

"You won't wish so a month hence," said the Deacon. "just wait till you've seen him cut up."

"But if I do think so four weeks from now, will you take him. Say yes, please do," and she laid her hand confidently on his arm.

"Well, yes; if after that time you think you can do anything with him, I'll try him a spell. But he's a hard case."

Miss Merton looked out of the window again. The boy had climbed over the paling and was now starting up the tree. She went out quietly into the front yard. There were not many flowers in bloom yet, only a few daffodils, a bunch of *fleur de lys*, and a box of violets. She gathered a few of the latter and sauntered leisurely down the gravelled walk, pausing now and then to look at the annuals just peeping out of the moist ground. By and by she reached the cherry tree, on whose lowest bough the boy yet stood, for he had not advanced a foot since she came out, having been closely eying her.

"What are you trying to get, little boy?"

She spoke pleasantly and a lovely smile played about her lips.

"A robin's nest, ma'am." He was no liar, with all his faults.

"O, I wouldn't." Her voice had a grieved tone. "It would be such a pity, when the birds have just finished it. Are there eggs in it?"

"I don't know; I'll see," and he climbed rapidly to the nest. "Yes ma'am, four." He didn't touch them, but came down again to the lowest bough.

"There'll be little birds soon, then, and it'll be so pleasant for me to watch them—I wish you wouldn't touch them."

"I won't, ma'am. I didn't want it for myself, but poor little Tommy said last night he wished he had a string of birds' eggs to look at. Tommy is lame, ma'am, and can't get out much, and he gets lonesome, and wants something to play with. So I thought I'd get him some."

"Is Tommy your brother?"

"No, ma'am. I never had any brother or sister, either." His voice softened as he spoke. "He belongs to the folks where I stay."

"I'll send Tommy something as pretty as bird's eggs. See here," and she broke off a large bunch of lilacs and handed him the purple plumes. "Carry this to him. Put it in a pitcher of water, and it'll keep fresh several days; and here are some flowers for you," and she gave him the little bunch of violets she had gathered. "Run quick with them now, or you will be late to school. You're going to school ain't you?"

"Are you the new teacher?"

"Yes."

"I'm going then; I'll be there in time, and he ran off.

Now only the night before, he had declared up and down to Tommy that he wouldn't go to school. It was no use. He never would be anybody, and he was tired of being flogged and beaten and boxed. He wouldn't stand it from a woman teacher. And if they sent him to school he'd play "hokey," he would. Yet the very next morning he was in a hurry to go, fearful he should be too late. Who will dare say there is not magic in kind words.

Miss Merton went early to the school house. The "worst boy" was already there.

"Ah," said she, kindly, "you've beat me. But I'm glad you're here, for I want to learn something about the school. What is your name?"

"Bill Hendrickson, ma'am."

"Say William, my dear, or Willie. Bill is not a pretty nickname."

"It's what I've been called ever since my father died," and he sighed.

"Then your father is dead, poor boy." She spoke tenderly. "And your mother—"

"She's dead, too, ma'am. She died when I was a little baby. I cannot even remember how she looked," and new tears gathered into his blue eyes.

Courage, thought Miss Merton. A boy who weeps at the mention of his dead mother cannot be all bad. And she laid her hand caressingly on his brown hair, and said softly, "I know how to feel for you, Willie, for I, too, am an orphan."

That gentle touch. It melted the poor boy's heart entirely, but with the better feelings that there surged over his soul came a feeling of shame, too, and for the first time in his life he blushed for his matted hair, and his dirty face and hands.

"I believe," he said, after a moment's thought, "I'll run down to the brook and wash myself. I forgot it this morning. No I didn't either," disdaining the falsehood. "I was too mad to do it, but I'll wash now."

"Do, Willie, that's a good boy. I love to see my pupils neat and tidy. Here's a towel for you to wipe on. I always bring one with me to the school, for the little ones most always need washing after dinner. And here are a pair of pocket combs—bran new ones.

I'll give them to you, if you'll promise to use them every day."

Willie ran to the brook and made such a dexterous use of the towel and the combs that he hardly seemed like the same boy when he returned.

"Why, you're real handsome" Miss Merton spoke involuntarily, but she spoke the truth, for he was a handsome little fellow, with a high, fair brow, and a wealth of nut-brown hair clustering about his temple, in soft, silky curls.

"I shall not have much time to talk to you, for I hear the children coming," and as she spoke, little snatches of musical laughter came ringing through the open door; "but one thing I must say. I need your help, Willie."

He looked up and his blue eyes dilated in wonder. His help! What could he do to help her.

She continued. "I need your help, Willie. You are probably one of the oldest pupils I shall have, and the little ones will all look up to you as an example. If they see you quiet, mannerly, orderly, faithful to your studies, and prompt in recitations, they will strive to emulate you, and I shall have but little difficulty in governing the school, but if, on the contrary, you are noisy, forward, rude, negligent of your lessons, and dilatory in coming to your class, they will imbibe your spirit, and I shall go home every night sad and weary. Willie, you are cut out for a good boy," and she moved her hand over his now glossy hair. "Your head is a good one. If you will only guide it with your heart, it will make a good, and perhaps a great man of you. Can I trust you, Willie, will you help me to make this school a credit to the district?"

Willie had never been talked to in that way before. He had never had trust reposed in him. He hardly knew what to make of it now, but he did not hesitate to say at once

"I will help you all I can. Perhaps I shall forget sometimes, and act bad, because I'm so used to cutting up, that it'll go hard to be good all at once, but if I do, just look at me and I'll give up."

The other scholars came in just then, and looked surprised enough to see Willie there in earnest conversation with the teacher. They hung back bashfully.

"Tell me their names, Willie," said Miss Merton kindly, and as she spoke each one, she took them gently by the hand, stroking the heads of the little boys, and kissing the cheeks of the little girls.

School opened. The scholars watched in vain for Willie to begin his antics, but proud of the confidence reposed in him, he never, that morning, violated a single rule.

"You have done nobly," said Miss Merton to him, as at the nooning she sat down by him. She opened her dinner pail. "Bless me, but Mrs. Gray must have thought I had a wolf's appetite. Can't you help me devour some of this generous dinner. The boy, used to scrape and crust, took eagerly the nice, white bread, the thin slices of pink ham, the fresh, hard-boiled eggs, the seed cakes and rhubarb pie.

"Are there any cowslips in the brook?" she asked, when the meal was finished.

"Oh, yes, ma'am plenty of them."

"I wish you would bring me five or six pretty ones. I am going to make a herbarium, and I want some of all the early flowers."

The boy didn't know what a herbarium was, but he brought the flowers quickly, and looked on with curious eyes while she analysed one of them, and then, after consulting her Botany, carefully arranged the remainder in the shape of a crescent, and placed them between the leaves of the large blank book she took from her desk.

The other scholars gathered about her, and one little girl asked "what she did that for."

Miss Merton explained, and then carefully turning the leaves, showed them a page on which lay pressed the delicate stars of the trailing arbutus, and another on which lay the shell-tinted flowers of the anemone, and another on which the pretty little spring beauties lay clustered.

"I am desirous of making a very large and beautiful collection, for I wish to present

beautiful world that they lived in, and pointing out the various interesting things that were all about them; the old grey mountains in the distance, with the purple shadows of evening dropping over them; the green fields beside them, with the white lambkins sporting over them; the dim forest with its cathedral aisles, stretching far into the distance; the blooming orchards, with their snowy promises; the little brooklet with its singing waves; the brown and golden birds filling the scented air with their clear notes, and lastly, the scarlet west, with the amber currents of sunshine playing over it in gorgeous tides.— And when she knew his heart was interested and full of unutterable feeling, she said quietly, "What a good God! to place us in a world so fair. Would you not like to know some thing more about Him, Willie? Would you not like to study that holy book of His, which He has given mankind to show them the way to heaven?"

"O yes, ma'am," and the boy spoke devoutly.

"I thought you would, and so I asked you. I am going to have a class in the Sunday School, and shall open it next Sunday. You will come, Willie, and be one of my scholars."

"I'd like to ma'am," and then he glanced at his bare feet and his ragged clothes, and sighed as he added, "but I don't see how I can. These are all the clothes I have to wear."

"I have thought of that, Willie, and if you will come to-morrow morning to the Deacon's and let me have your jacket awhile, I'll mend it up for you, and here's a quarter I'll give you to go to the store and buy you a new hat. You can get a good straw one for that, can't you?"

"O yes. Dear me, how good you are to me. I don't see what makes you so. Everybody else frets and scolds at me, and says I'll go to the penitentiary yet, I'm so bad."

"I love you, Willie, and that is why I treat you as I do. An orphan myself, I can feel for your lonely life. Heaven only knows what I might have been, had not good friends cared for me when my father and mother died and left me alone in the wide world. Willie, I've great hopes of you. You learn quick, remember well, and see into things easily.— You are capable of making yourself a good name in the world. You will do it too, I know you will. Don't you believe it?" and she looked hopefully into his eyes.

"I want to; O, if I only could! I'll try. I'll study hard every day, and I'll go to Sunday School every Sunday. And if I do grow up good, I'll lay it all to you, for no one else ever cared for me. They even grudge me my victories. O, but I've seen hard times," and tears trickled down his cheeks.

"Don't think of them, Willie. Look forward. There is a sunny future in store for you. Good night. Don't forget to bring the jacket."

* * * * * "What under the sun have you got in your hands, Miss Merton," said Mrs. Gray, the next morning, as the school ma'am entered the kitchen.

"Why, it's Willie's jacket. I've promised to mend it for him, so that he can go to Sunday School to-morrow, and I've come to beg some patches."

"Mercy on me, but you can never mend that ragged thing."

"O, yes, I can. Where can I find some patches?"

"Why, there's lots of them in the loft over the woodshed. I store them up there for carpet rags all through the winter and in the spring take them down and wash them up and sort them over; but dear me, you never can do anything with that old thing."

"You'll see," was the cheerful response, and the school ma'am mounted up the ladder to the left, and selected some suitable patches. Sitting down by the window, she ripped up both sleeves above the elbow, cut off the rags and pieced them down, sewed up the seams again, and put in fresh lining, and made new cuffs. Then she cut off the torn button-holes, pieced out the sides and made new ones, and darned here and there till there was not a single hole.

"Has the school ma'am turned tailoress," said the Deacon, as he came in to dinner, "what wages do you make?"

"O, good ones, I tell you. Ain't I a good hand at patching?" and she held up the neatly mended jacket. "And then, before she could speak further, Mrs. Gray told the Deacon who it was and how it looked when she brought it in.

"You must have some hopes of the boy Miss Merton, or you would not take so much pains with him."

"I have great hopes of him, Deacon Gray." And she detailed the experience of the week.

"Ah, but one swallow don't make a summer."

"I know it, Deacon, but then one swallow is a harbinger of summer. It gives us hope of seed-time and harvest. It tells us there is warm weather somewhere, Deacon, I have studied the boy this week, and I am satisfied that he only needs kind treatment and encouragement to place him far above the average of men. O, if you would only let him come here now. I'll answer for his good conduct."

The Deacon hesitated, but Miss Merton plead, and eloquently too, for she felt that a soul's salvation lay in the answer she should receive to her petition.

"You'd make a good preacher, Miss Merton," and he drew his hand over his eyes. It's hard resisting you. In fact I guess I'll have to yield. If mother's willing, he can come to night."

"You'll never repent this good deed, Deacon, never, never. The boy must be good in such a home as this; so neat, quiet and well arranged. I'll answer for him."

"Where are those pants I laid off last week, wife; those grey ones? They were pretty good yet—only thin about the seat, and out at the knees. I guess between you, you could get the boy a decent pair out of them."

O, yes, indeed, father, I could cut them over and turn the fronts to the back. Yes, indeed; I'll get at them as soon as I do up the dinner work."

Just at evening Willie came for his jacket, and words cannot express his joy at learning he was henceforth to live under the same roof with his idolized teacher.

"O, I'll be so good," he said. "Do tell me what I could do for you, Mrs. Gray," and without waiting for an answer, he ran out to the shed and brought in the night's wood, and split the kindlings, and drew the water and filled the kettle, fed the pigs and brought in the eggs.

"Can you milk, Willie? The Deacon generally does, but he's late to-night, and will be tired when he comes in."

"O, yes, ma'am, I guess I can," and he soon brought the swimming pails into the dairy.

The snow-white biscuit, the quivering custard-pie, the mellow cider apple sauce, the golden butter and the fragrant tea, were just placed on the neatly laid table when the Deacon's step was heard.

"Waiting," said he, "well sit down, I must do my chores first."

"They're all done," said Willie, respectfully "I did them."

"Ah, you did them did you? Well, then we'll have tea."

Mrs. Gray had placed an extra plate by the side of the school-ma'am, and now motioned Willie to sit there."

"I can wait, I always do," said he, handing back.

"Nobody waits at my table, when there's room," said the Deacon. "Sit down, boy, and remember that is your place hereafter."

It seemed to Willie that he had suddenly stepped into another world, everybody so kind— everything so free.

* * * * * Sunday morning came. Willie was up before sunrise, doing the necessary chores, and then Mrs. Gray hung up an old blanket in one corner of the wood shen, and gave him a pail of warm water, some soap, a sponge and towel, and told him to strip himself to the skin, and wash himself thoroughly. And then, just when the boy was holding his dirty, ragged shirt in his hand, and hesitating to put it on, a sweet voice said kindly, "you will find your clothes just outside the blanket, Willie," and then footsteps ran away.

He peeped out. Sure enough, there was a bran new shirt, the gift of Miss Merton, which she had made evenings; the Deacon's pants, the mended jacket, a pair of neatly darned socks, some of the Deacon's that had shrunk, and a pair of good, stout, shoes, the last a present from the Deacon, who had told Miss Merton and his wife, "he wouldn't do things by halves, he'd test the boy thoroughly."

There were many happy little faces in the church that Sabbath morning, but none brighter or more cheerful than William Hendrickson's, and no boy behaved himself better in meeting either, than did he, reading out of the same book Miss Merton did, kneeling by her side, and reading the beautiful words of the hymns, as her sweet voice joined the chorus of the choir.

Weeks passed on. The summer-time was gone, and with it, the dear school-ma'am.

"I may never see you again, Willie," she said tenderly, as she held his hands at parting, "but I hope always to hear a good report of you. The Deacon has promised to write to me occasionally, and I shall expect to

hear from you in every letter. I shall never forget you. I shall remember you in my prayers, night and morning. Willie you will not disappoint me."

Through his tears the boy sobbed out, "no no, no; O, if you could always be with me."

"I leave you with a Friend who never forsakes, God is with you."

She was gone, and it seemed to the poor boy that the heavens had shut its door on him forever. But he manfully struggled with himself, and though it was not near so easy to be good under the new teacher that came, he was good, remembering ever his promise.

I would like to follow his career, step by step, but my story is growing long, and I can only tell you the results of his continued efforts after knowledge and goodness. He became so near and dear to Deacon Gray, that when he was sixteen he adopted him; his only little blue-eyed son having been called to the "other side of the river." He went first to the academy, then to college, then to a theological school, and then to the *pulpit*. Yes; he whom the country people all said was bound to go to the penitentiary, now preaches the gospel of Christ, on every Sabbath day. And the dear teacher, now an aged matron, with silvery hair, listens to him and learns of him. The pupil has become the pastor; the worst boy in school is now one of the most eloquent preachers, and what is better far, one of the best of men. Verily, "as ye sow, so shall ye reap."

Hoosier, Iowa.

Knowing too Much.

During the administration of President Jackson there was a young gentleman employed in the public service at Washington, whose name was G.; he was from Tennessee, the son of a widow, a neighbor of the President, on which account the old hero had a kind feeling for him, and always got him out of his difficulties with some of the higher officials, to whom his singular inferences were distasteful.

Among other things, it is said of him that while he was employed in the General Post-Office, on one occasion he had to copy a letter for Major H., a high officer, in answer to an application from an old gentleman, in Virginia or Pennsylvania, for the establishment of a new post office. The writer of the letter often used classical language; in this letter he said the application could not be granted, in consequence of the applicant's "proximity" to another office. When the letter came into G.'s hands to copy, being a great stickler for plainness, he altered "proximity" to "nearness to." Major H. observed it, and asked G., why he had altered it. "Why," replied G., "because I don't think the man would understand what you mean by 'proximity'."—

"Well," said Major H., "try him: put in the 'proximity' again."

"Waiting," said he, "well sit down, I must do my chores first."

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1860. SUMMER ARRANGEMENT. 1860.

MICHIGAN SOUTHERN

DETROIT, MONROE and TOLEDO RAIL ROAD.

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CLEVELAND LINE.

With its connections, forms a Through Route from Detroit to Monroe, Adrian, Chicago, Toledo, Sandusky, Cleveland, Dayton, Hamilton, Cincinnati, Pittsburgh, Wheeling, Harrisburg, Philadelphia, Baltimore, Washington, Erie, Dunkirk, Buffalo, Albany, New York, Boston, Montreal, Quebec, Portland, Rouses Point and all points interior, in Ohio, Pennsylvania, New York, and the New England States, and all points West and South West.

ON and after Monday, April 9th, 1860, Passengers

ARRANGEMENT OF TRAINS.

FROM DETROIT, daily, except Sunday, except Sunday, at 7:30 A. M.; arriving in Toledo at 10:15 A. M., connecting with the Express Train from Toledo at 10:30 A. M. (via old Road), arriving in Chicago at 1:15 P. M. Chicago and Cincinnati Express, daily, except Sundays, at 7:40 P. M., arriving in Toledo at 10:35 P. M., Adrian 11:20 P. M., connecting with the Lightning Express Train for Chicago (via old Road), arriving in Chicago at 8:00 A. M.

TO Toledo accommodation, daily, except Sunday, at 12:15 P. M., arriving in Toledo at 4:00 P. M., connecting with Express Train for Chicago, Boston and New York.

FROM CHICAGO—Mail and Express, daily, except Sundays (via old Road), at 6 A. M. and Lightning Express, daily, except Sundays, via Air Line, at 8:00 A. M., making connection with 4:05 P. M. train from Toledo at Air Line Junction, arriving in Detroit at 6:30 P. M. Chicago and Montreal Express, daily, except Saturday, at 8:00 P. M., via old road and Adrian, arriving at Detroit at 7:05 P. M.

Mail and Express, daily, except Sundays, at 4:05 P. M., arriving at Detroit at 6:30 P. M.

Detroit Accommodation, daily, except Sundays, at 11:00 A. M., arriving in Detroit at 3:00 P. M.

CONNECTIONS:

Trains from Detroit connect at Adrian with Michigan Southern Main Line for Chicago, with New Albany and Salina Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

Connect at Toledo with Dayton and Michigan Road, for Dayton, and Cincinnati; with the Cleveland and Toledo Road, for Sandusky, Cleveland, Pittsburg, Franklin, Birmingham, Boston and New York; with Water Valley Road for Flint, Wayne, and points Southwest, and with Air Line Rail Road for Bryan, Kalamazoo, Ligonier and Goshen.

Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Sarnia, Toronto, Prescott, Montreal, Quebec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, also with Detroit and Milwaukee Railway, for Grand Rapids, Grand Haven and intermediate Stations.

Freight Trains leave daily, except Sunday, as follows:

TO TOLEDO, at 12:15 P. M. arriving at Toledo at 4:00 P. M.

FOR CHICAGO, at 4:00 P. M., arriving at Chicago at 9:00 P. M.

Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

Woodruff's Patent Sleeping Cars accompany all night trains on this route.

No change of cars between Detroit and Chicago.

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The Best and Cheapest Tile Machine in the World.

Forty-one first Premiums awarded to it at State and County Fairs. First Premium at the National Fair, at Louisville, Ky., 1857.

The TILE MACHINE invented by JOHN DAINES of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the

cheapest, most labor-saving and most complete invention,

and enabling farmers to make their own Tiles, that has yet been put before the Agriculturalists of the United States, at a reduced price.

These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.

They cost delivered in Detroit only \$100. They have two dies, for three and four inch tile; and extra dies to accompany the machine cost \$2.00 each.

These machines will manufacture per day, according to the force employed, from 500 to 2500 rods of HOLLOW or PLAIN TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as

